

AQRP Monthly Technical Report

PROJECT TITLE	Improved Land Cover and Emission Factor Inputs for Estimating Biogenic Isoprene and Monoterpene Emissions for Texas Air Quality Simulations	PROJECT #	14-016
PROJECT PARTICIPANTS	Alex Guenther (Battelle/PNNL) Joost de Gouw (NOAA) Greg Yarwood, Sue Kemball-Cook (ENVIRON)	DATE SUBMITTED	8/18/2014
REPORTING PERIOD	From: June 1, 2014 To: June 30, 2014	REPORT #	2

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task

Task 4: Development of MEGAN Biogenic Emission Inventories and Inventory Evaluation using Regional Photochemical Modeling

ENVIRON carried out mesoscale meteorological modeling of the period June 1-July 15, 2013 with the Weather Research and Forecast (WRF) Model (Skamarock et al. 2008). ENVIRON developed model inputs and ran the model on the nested 36/12 km modeling grids that encompass the NOAA/NCAR aircraft flight tracks to be used to develop biogenic emissions. ENVIRON began evaluation of WRF output fields against CAMS station wind and temperature data within Texas and ds472 airport meteorological data within and outside of Texas.

Task 5: Project Management

ENVIRON worked toward developing subcontracts with NOAA and PNNL/Battelle for work to be done under Tasks 1-3.

Preliminary Analysis

No results available yet.

Data Collected

None.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

None to date

Goals and Anticipated Issues for the Succeeding Reporting Period

Task 4: Continue WRF model performance evaluation for initial run against ds472 surface observations within the 12 km grid, observed precipitation, and satellite cloud observations.

Detailed Analysis of the Progress of the Task Order to Date

The project is on schedule and budget for completion and delivery of the final AQRP-reviewed report by the AQRP contract end date of June 30, 2015.

References

Skamarock, W. C., J. B. Klemp, J. Dudhia, D. O. Gill, D. M. Barker, W. Wang, and J. G. Powers, 2008. A description of the Advanced Research WRF Version 3. NCAR Tech Notes-475+STR. http://www.mmm.ucar.edu/wrf/users/docs/arw_v3.pdf.

Submitted to AQRP by: Sue Kemball-Cook

Principal Investigator: Greg Yarwood